NIELS JOUBERT

Berkeley, CA 94704 • (650) 823-1662 • njoubert.com • niels@berkeley.edu

EDUCATION

University of California, Berkeley (2005 – present, Berkeley, CA)
B.Sc. Honors in Electrical Engineering and Computer Science, expected graduation: May 2009.
Cumulative Unweighted GPA: 3.86 (Aug 2005 - current)

Los Altos High School, Grade 12 (2005, Los Altos, CA)
Graduated Valedictorian, Cumulative Unweighted GPA: 4.0

Paul Roos Gymnasium, Grade 8 – 11 (2001 – 2005, Stellenbosch, South Africa)
Honored as best scholar 4 consecutive semesters, Cumulative grade: 108%

SKILLS

Software Development using C/C++, Java, Python, MATLAB, Scheme, CVS/SVN. *Nix, OS/X & Win32
Experienced in Computer Graphics principles and Networking (protocol analysis & design)

Web Development using Rails, PHP, JavaScript, XML/HTML, CSS and AJAX techniques.

Comfortable with rapid prototyping, SCRUM development and Extreme Programming principles.
Strong and recognized interpersonal and verbal/written communication skills.

PROJECTS & PUBLICATIONS

For a complete portfolio of projects and research, see my online portfolio at http://njoubert.com/

Client-Server Cloth Simulator Real time cloth simulation, SIGGRAPH 2009 paper in progress.

Raytracer Rendering high-quality scenes with global illumination effects.

Red5 Flash Video Server Flash video server supporting synchronous video sharing. SIGCHI 2008 paper.

2draw.net Online Art Community Website, focused on education and free online drawing tools.

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WORK AND RESEARCH EXPERIENCE

Berkeley Computer Animation & Modeling Research Group, 08/2008 – present: Exploiting client-server game environments to improve simulation quality. SIGGRAPH 2009 paper in progress.

UC Berkeley Teaching Staff, 01/2008 – present: Student Instructor for Computer Graphics course, responsible for co-teaching class with faculty. Tutor for self-paced Introduction to CS courses.

Pixar Animation Studios, Next Generation Tools, 06/2008 – 08/2008: Extended Pixar's in-house animation tool to support symmetry in rigging models, and NURBS surface animation.

Yahoo! Research Berkeley, 01/2007 – 01/2008: Expanded video server as research platform, built prototypes for Yahoo Live & location aware software. Published paper accepted into SIGCHI 2008.

Berkeley Supernova Research Team, 06/2006 – present: Detecting new supernova and photometry observations to track supernovae evolution. Acknowledged in paper in The Astrophysics Journals

UC Berkeley New Student Services, 01/2006 – 08/2006: Cal Student Orientation Counselor

RELEVANT COURSEWORK

CS 294 Physically Based Animation (In Progress)	Math 110 Linear Algebra (A-)
CS 170 Efficient Algorithms (In Progress)	EE 126 Probability and Random Processes (B)
CS 188 Artificial Intelligence (A-)	EE 122 Computer Networks (A)
CS 184 Computer Graphics (A+)	EE 120 Signals Processing (A)
CS 162 Operating Systems (A)	EE 40 Microelectronic Circuits (A-)
CS 61C Machine Structures, C and MIPS (A)	EE 20N Signals and Systems (A)
CS 61B Data Structures and Java (A)	Astro121 Radio Astronomy (A+)
CS 61A Program Structure and Interpretation (A+)	Astro162 Planetary Astrophysics (A-)

HONORS, AWARDS & RECOGNITION

08 – Golden Key Club nominee as a student in the top 5% of UC Berkeley.
07 – Elected as Industrial Relations Officer for the HKN Engineering Honors Society
07 - Accepted into Berkeley's B.Sc. Honors Degree program
06 - Yahoo! University Hack Day winner at UC Berkeley.
06 - Recipient of William B. Slottman Award as the best counselor for incoming students.
05 - Chancellor's Honors for outstanding academic achievement at UC Berkeley.
02 - Gold Medal in Expo for Young Scientists, recipient of Electrical & General Engineering prizes.

INTERESTS

Mountain Biking, Snowboarding, Music (Violin, Bass Guitar and DJing), Amateur Radio, Videography